

The meaningful, the open-minded or the greedy? Diverging effects of distinct traits on sustainable and circular consumption

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Abstract

Purpose – This paper aims to investigate how ownership of sustainable and circular brands (as opposed to regular brands) is associated with different traits: meaning in life, openness to experience and dispositional greed.

Design/methodology/approach – This study ($n = 500$) measured respondents' self-reported ownership of sustainable, circular and regular brands. The questionnaire also assessed respondents' traits. The data were analyzed using structural equation modeling.

Findings – Distinct traits are related to distinct types of responsible consumption. By investigating separate dimensions of meaning in life, this research shows that the presence of meaning in life and the search for it have different effects on different forms of responsible consumption. Openness to experience does not

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necessarily drive ownership of circular brands. Dispositional greed is a positive driver of circular but not sustainable consumption.

Research limitations/implications – While this study offers highly externally valid findings by examining actual consumption of sustainable and circular brands, future research might consider isolating and testing underlying effects using an experimental design and in more controlled lab settings.

Practical implications – The findings enable policymakers and practitioners to improve their market entry, presence, consumer targeting and communication/education strategies.

Originality/value – This study shows that despite considerable overlap between sustainable and circular consumption, these two forms should not be considered to be equivalent outcomes for a diverse range of drivers.

Keywords Sustainable products, Consumer behavior, Motivation, Traits, Responsible consumption, Circular products

Paper type Research paper

1. Introduction

Prior literature has found that responsible consumption – consumption that considers environmental, economic, social and health dimensions – is complex and can be affected by multiple psychological factors (Gifford, 2014; Van Vugt, 2009; Zaval *et al.*, 2015). Many studies have demonstrated that different types of responsible consumption are driven by environmental concerns (e.g. Albayrak *et al.*, 2013; Bamberg, 2003; Kinnear and Taylor, 1973; Park and Lin, 2020; Roberts and Bacon, 1997; Roberts, 1996; Straughan and Roberts, 1999; Yarimoglu and Binboga, 2019). However, more recent work has failed to find a link between environmental concerns and responsible behavior, indicating that more psychological mechanisms are accountable for responsible consumer judgment and decision-making. For example, green awareness does not always predict the purchase intention of remanufactured products (Singhal *et al.*, 2019), and the environmental benefits of refurbished products do not play a primary role in purchase decisions (van Weelden *et al.*, 2016). In addition, some research shows that responsible behavior is not solely driven by environmental concerns but can be guided by personally and socially driven motivations. For instance, willingness to pay for products with a socially responsible label is not driven by environmental concerns but by direct consumer benefits (Tully and Winer, 2014) and consumers tend to select sustainable options to clearly convey social status or to impress others (Green and Peloza, 2014; Griskevicius *et al.*, 2010).

These findings suggest that the category of responsible consumption may be too broad to be meaningfully and univocally associated with diverse drivers. Following the logic of domain specificity, different types of responsible consumption may be influenced by various traits. To date, only a few studies have simultaneously addressed preferences for different types of responsible products and their underlying drivers (e.g. Hosta and Zabkar, 2021; Tully and Winer, 2014). Yet, there are multiple reasons to expect that different types of responsible consumption are associated with different and even divergent motivators. We use sustainable and circular brands as a case in point. We acknowledge that sustainable consumption and circular consumption show considerable overlap. Yet, we argue that sustainable consumption is a psychologically different type of consumption than circular consumption. Thus, the underlying traits, judgments and decision-making may also differ. Specifically, sustainable consumption offers many social benefits by providing access to basic services, green and decent jobs, and a better quality of life for everyone, while also contributing to lower economic, environmental and social costs in the future, strengthening economic competitiveness and alleviating poverty (Ritchie and Mispy, 2018). Meanwhile, circular consumption has a narrower resource conservation aim and involves “sharing,

leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible,” so the life cycle of products are extended (EP, 2022; see also Geissdoerfer *et al.*, 2017).

Regarding empirical research, sustainable consumption has received a fair amount of attention and multiple studies have shown that sustainable consumption can be increased by external factors (e.g. Lange *et al.*, 2018), willingness to comply with social norms (e.g. Bollinger and Gillingham, 2012; Dowd and Burke, 2013; Goldstein *et al.*, 2008; Harland *et al.*, 1999; Minton *et al.*, 2022), moral norms (e.g. Han and Stoel, 2017; Steg and Vlek, 2009), social needs (e.g. social identity, belongingness, social desirability; Costa Pinto *et al.*, 2014; Green and Pelozo, 2014; Griskevicius *et al.*, 2010; Schultz *et al.*, 2022), certain traits (e.g. emotional intelligence, innovativeness, conscientiousness, environmental concern, see Fraj and Martinez, 2006; Yan *et al.*, 2021; Kadic-Magljajlic *et al.*, 2019; Li *et al.*, 2021; Theotokis and Manganari, 2015), self-conscious and moral emotions (Antonetti and Maklan, 2014; Liang *et al.*, 2019) as well as moral competencies (Valor *et al.*, 2020).

In contrast, only a handful of studies have investigated the drivers of circular consumption. These studies show that circular consumption is driven by certain characteristics of circular products (e.g. the product’s history, emotional value, positive image, perceived safety, see Calvo-Porral and Lévy-Mangin, 2020; Kim *et al.*, 2021a; 2021b), the expectation of positive feelings (e.g. “warm glow,” pride, anticipated conscience, see Adıgüzel and Donato, 2021; Magnier *et al.*, 2019; Tezer and Bodur, 2020), certain traits (the need for self-expression or uniqueness, individualism, tolerance for ambiguity, e.g. Hazen *et al.*, 2012; Kamleitner *et al.*, 2019; Kim *et al.*, 2021a), certain personal norms (e.g. perceived consumer effectiveness, see Park and Lin, 2020), as well as self-congruity with green products and green self-identity (Confente *et al.*, 2020). This brief overview shows that there is remarkably little overlap between the set of drivers for sustainable versus circular consumption.

Our work provides four key contributions to the literature on responsible consumption. First, we refine the conceptualization of sustainable and circular consumption by exploring their overlapping and distinct aspects. Although circular consumption is often considered a subset of sustainable consumption (e.g. Geissdoerfer *et al.*, 2017), the two differ in important ways. We propose a refined conceptualization that delineates these two forms of responsible consumption based on their (1) scope, (2) focus and (3) orientation. Second, drawing on the trait activation theory (Tett and Burnett, 2003), we suggest that sustainable and circular consumption types signal different features that correspond to distinct traits. We take meaning in life, openness to experience and dispositional greed as a case point and examine whether sustainable and circular consumption may be influenced by these different traits in diverging ways. By testing both sustainable and circular consumption in the same data set, we provide the first direct comparison of their trait-based antecedents. Third, we deepen the understanding of the complexity of different traits in predicting sustainable and circular consumption, highlighting their nuanced effects on different consumption types. For instance, two facets of meaning in life, i.e. the presence of and the search for meaning in life, have distinctive effects on consumption types; or dispositional greed positively predicts ownership of circular but not sustainable brands. Fourth, previous research has documented the intentions-behavior gap – that is, consumers may report positive intentions toward responsible consumption but do not follow up when it comes to actually buying responsible brands (e.g. White *et al.*, 2019). Therefore, in this research, we focus on studying ownership of brands, defined as “the state or fact of owning something” (Cambridge University Press, 2025a), and thus contribute to prior work, providing a thorough picture of responsible consumption [1].

2. Theoretical background and hypothesis development

2.1 Conceptualization of sustainable and circular consumption

Prior research lacks a comprehensive and unified conceptualization of sustainable consumption (Giulio *et al.*, 2014; see also Haider *et al.* (2022) for a review of different definitions of sustainable consumption). A significant number of studies have defined sustainable consumption exclusively from the environmental perspective; however, most research has used an integrated perspective, framing sustainable consumption with environmental and socio-economic impacts (Fischer *et al.*, 2021) using the seminal definition of Brundtland Commission (1987) that considers three interconnected pillars of sustainability: environment, economy and society. Accordingly, sustainable consumption is defined as consumption with the aim of preserving our planet, people and economic resources (WCED, 1987). When it comes to conceptually linking sustainable consumption definitions with actual consumed products, prior research has suggested that sustainable products incorporate a range of features focused on reducing resource consumption, enhancing product longevity and promoting ethical practices. For instance, consumption might entail choosing products produced using environmentally friendly materials (e.g. recycled, upcycles, biodegradable, renewable, organic, etc.) and resources efficiently (e.g. efficient use of water, energy, materials, using renewable energy sources and energy-efficient technologies, minimizing greenhouse gas emissions, offsetting carbon, etc.), sourced ethically and responsibly (e.g. fair-trade, local, ensuring fair labor, animal welfare), that are nontoxic and safe, oriented toward biodiversity and ecosystem health, designed with a focus on quality, durability and longevity (e.g. products with no planned obsolescence; on the contrary – made to last longer through superior materials or craftsmanship, reducing the need for frequent replacement), focused on reducing waste (e.g. zero or minimal, eco-friendly packaging, compostability, recyclability, take-back programs, etc.), are socially responsible (e.g. support for communities, community engagement and education, ensuring transparency, etc.), etc. Innovative approaches are very important for sustainable product design and creating cutting-edge, lower environmental impact-making materials (e.g. plant-based plastics, lab-grown materials), etc.

Similarly, prior work has not reached a unified conceptualization of circular consumption. Circular consumption is considered to be a form of sustainable consumption as it supports the broader goals of sustainability by focusing on reducing resource use, extending the lifecycle of products and reducing waste (Geissdoerfer *et al.*, 2017). Circular consumption is defined as the acquisition and consumption of products transformed by repairing, reconditioning, refurbishing, remanufacturing or recycling (Ellen MacArthur Foundation, 2013; EP, 2022). When it comes to conceptually linking sustainable consumption definitions with actual products consumed, prior research has provided suggestions that circular products are produced to maintain the materials in the closed-loop system for as long as possible, rather than being disposed of after use (Kirchher *et al.*, 2017). Such an approach contributes to minimizing waste and the extraction of new resources, thus reducing consumption's environmental footprint.

At first sight, sustainable consumption and circular consumption definitions might show considerable conceptual overlap. They both focus on minimizing environmental impact, emphasizing efficient use of resources, avoiding waste and preserving resources for future generations. However, we argue that, despite sharing several common goals, sustainable consumption and circular consumption differ in their (1) scope, (2) focus and (3) orientation. First, sustainable consumption and circular consumption differ *in scope*. Sustainable consumption is focused on a broader scope as it offers many social benefits by providing access to basic services, green and decent jobs, and a better quality of life for everyone,

contributing to lower economic, environmental and social costs in the future; strengthening economic competitiveness; and alleviating poverty (Ritchie and Misy, 2018). Thus, sustainable consumption is frequently motivated by a wide range of factors, including the social and economic impacts of their purchases, in addition to environmental concerns (Carrington *et al.*, 2010; Tanner and Wölting Kast, 2003; Shaw and Shiu, 2002; White *et al.*, 2019). In contrast, circular consumption has a narrow focus as the primary nature of circular consumption is resource-centric, meaning that its aim is to keep resources in circulation for as long as possible (Ghisellini *et al.*, 2016; Stahel, 2016). Although resource centrality sometimes results in broader ethical and social implications, the main goal of circular consumption is still centered around resource conservation and consuming less. Second, sustainable consumption and circular consumption differ *in focus*. Sustainable consumption is a more abstract, intangible consumer behavior that results from broader lifestyle changes (e.g. buying less but of higher quality or supporting sustainable brands; Lorek and Fuchs, 2013; Jackson, 2005). Meanwhile, circular consumption has tangible benefits and is cost-efficiency oriented, such as buying secondhand, engaging in product take-back schemes, etc. (Stahel, 2016). Third, sustainable consumption and circular consumption differ in their *promotion vs prevention orientation*. Sustainable consumption seeks better ways to improve our planet's well-being by switching to superior production methods (Adams *et al.*, 2016; Kuzma *et al.*, 2020; Michelino *et al.*, 2019). In contrast, circular consumption is linked to preventing the loss of materials (Blomsma and Tennant, 2020; Desing *et al.*, 2021; Do *et al.*, 2021).

Furthermore, an important conceptual distinction between sustainable and circular consumption is that sometimes sustainable consumption can contradict circular consumption as scope, focus or promotion vs prevention orientation can be at odds with each other. For instance, a promotion focused on sustainable consumption would suggest that greater sustainability can be achieved by innovating through different methods of resource use (in producing meat, sustainable practices may promote eco-efficiency, e.g. changing animals' diet, so it is higher energy and grain-based, which in turn leads to greater healthiness of the meat). A circular approach, on the other hand, would always prioritize resource reduction over other sustainability goals (e.g. it would seek to create a meat substitute from plants, ensuring less material loss instead of focusing on changing animals' diet to improve healthiness).

Next, even though circular consumption can be linked and overlaps with sustainable consumption, efforts to achieve circularity do not always guarantee sustainable results. A recent study pointed out that circular products may also be unsustainable, e.g. when producing products from harmful secondary materials such as polymers that incorporate hazardous additives (Blum *et al.*, 2020). If the production of circular products consumes a lot of energy resources and they are taken from nonrenewable sources, their production leaves a bigger environmental footprint than the benefits of reusing existing materials.

Building on the discussion above, we conceptualize sustainable and circular consumption highlighting the above-mentioned differences. Sustainable consumption is defined as the consumption of products that seek to provide a broader scope of environmental, social and economic benefits and are linked with a more abstract, intangible focus and promotion orientation to improve the well-being of our planet. Circular consumption is defined as the consumption of products that seek to ensure a narrow scope of resource conservation and are linked with more tangible benefits as well as a cost-efficiency focus and prevention orientation to improve the well-being of our planet.

2.2 Role of traits in sustainable and circular consumption

Prior research has documented several findings explaining how certain traits are related to sustainable and circular consumption. Studies linked to sustainable consumption have shown

that traits such as agreeableness, openness, conscientiousness, honesty–humility are positively related to sustainable consumption (Brick and Lewis, 2016; Gibbon and Douglas, 2021; Hopwood *et al.*, 2022; Koutala *et al.*, 2022; Panno *et al.*, 2021; Puech *et al.*, 2020; Soutter *et al.*, 2020), while neuroticism has a negative effect on sustainable consumption or no significant associations (Hopwood *et al.*, 2022; Koutala *et al.*, 2022; Soutter *et al.*, 2020; Soutter and Möttus, 2021). Interestingly, conscientiousness also has a positive impact on consumers' engagement in sustainable consumption (Koutala *et al.*, 2022). However, prior findings have also shown that individuals high in conscientiousness are less willing to buy such products (Gustavsen and Hegnes, 2020). Results regarding extraversion as a trait are mixed, as previous findings have shown both positive and negative impacts on sustainable consumption (Brick and Lewis, 2016; Gustavsen and Hegnes, 2020; Soutter *et al.*, 2020; Soutter and Möttus, 2021). Next, previous studies have shown a link between environmental concern, green consumption values (Alwitt and Pitts, 1996; Dikici *et al.*, 2022; Paul *et al.*, 2016; Thøgersen, 2011), awareness of consequences (Wiidegren, 1998), innovativeness (Li *et al.*, 2021) and sustainable consumption. Connection with nature (Nisbet *et al.*, 2009), high levels of esthetic appreciation, creativity, and inquisitiveness (Markowitz *et al.*, 2012), appreciation of beauty and excellence, kindness, love of learning, modesty, and humility, perspective, as well as self-regulation are also associated with sustainable consumption (Valor *et al.*, 2020). Emotional intelligence plays a role in engaging in sustainable consumption too (Chowdhury, 2017). Moreover, prior research has shown that individuals with a future-oriented perspective tend to engage in sustainable consumption due to their considerations of the long-term impact their actions cause (Joireman *et al.*, 2004). Moreover, prior research has analyzed how individuals with different types of value orientations make decisions regarding sustainable consumption. For instance, de Groot and Steg (2008) argued that consumers with an egoistic value orientation mostly pay attention to the costs and benefits that sustainable consumption brings. Individuals with a social-altruistic value orientation ground their decision-making in evaluating the costs and benefits for other people. Finally, individuals with a biospheric value orientation base their decisions regarding sustainable consumption on perceived costs and benefits for the ecosystem and biosphere as a whole. In line with these findings, several studies have shown a link between altruism and sustainable consumption (e.g. Straughan and Roberts, 1999; Xu *et al.*, 2021). Mindfulness, through various mechanisms, also promotes sustainable consumption (Fischer *et al.*, 2017; Kaur and Luchs, 2022; Sheth *et al.*, 2011). A commitment to values related to equity and social justice has a positive effect on consumers' engagement in sustainable consumption, whereas values corresponding to power and social status have a negative impact (Ladhari and Tchegn, 2015). This is in line with research applying Schwartz's (1992) categorization of values, which showed that such values as universalism, benevolence, self-direction, honesty, idealisms, equality, freedom and responsibility but not power, hedonism, tradition, security, conformity and ambition are linked to sustainable consumption (Karp, 1996; Vermeir and Verbeke, 2006). Furthermore, individuals who prioritize self-transcendence values (vs self-enhancement) are more inclined to consume sustainably (Nordlund and Garvill, 2003).

Although prior research has paid noticeably less attention to analyzing individual differences in the circular consumption domain, academic interest has grown in the last few years. Findings show that individuals who are distinguished by environmental concern or have high levels of environmental consciousness are prone to engage in circular consumption (Bae and Yan, 2018; Bigliardi *et al.*, 2022; Evans *et al.*, 2022; Ferraro *et al.*, 2016; Magnier and Gil-Pérez, 2023; Testa *et al.*, 2020; Yan *et al.*, 2015; Zaman *et al.*, 2019; Zhang and Luo, 2021). Consumers who have knowledge about the environmental impacts of

one's behavior or recognize more environmental benefits and have a higher awareness of refurbishing are more prone to engage in circular consumption too (De Guimarães *et al.*, 2023; Mugge *et al.*, 2017; Wang *et al.*, 2018). Prior research has also shown that higher levels of frugality (Evans *et al.*, 2022; Zaman *et al.*, 2019; Cervellon *et al.*, 2012), ambiguity tolerance and perceived behavioral control (Wang *et al.*, 2018; Zhang and Luo, 2021) are positively related to engagement in circular consumption. However, findings regarding materialism are somehow mixed. Cervellon *et al.* (2012) and Zaman *et al.* (2019) found that less materialistic individuals prefer secondhand goods to new material goods. However, Evans *et al.* (2022) did not find support for materialism playing a role in circular consumption. Next, narcissism has a negative effect on product reuse; however, faith in humanity (Bowen *et al.*, 2022) and proneness to nostalgia (Evans *et al.*, 2022; Cervellon *et al.*, 2012; Machado *et al.*, 2019; Medalla *et al.*, 2020; Zaman *et al.*, 2019) positively affect circular consumption. Interestingly, consumer innovativeness was found to negatively affect circular consumption (Mugge *et al.*, 2017), and newness-conscious consumers are prone to engage in circular consumption under certain circumstances (Chun *et al.*, 2023). Scholars have also investigated how individual differences are related to circular consumption in specific domains. For instance, style consciousness and fashion consciousness play a role in the secondhand fashion industry (Evans *et al.*, 2022; Ferraro *et al.*, 2016; Gupta *et al.*, 2019; Harris *et al.*, 2016; Machado *et al.*, 2019). In the circular food domain, risk-taking individuals are willing to pay more for circular products compared to those who are risk-averse (Hellali *et al.*, 2023). Risk aversion, however, did not show any significant relationship with intention toward circular food products (Hellali and Korai, 2023). Finally, prior research also explains how different value orientations shape positions regarding circular products. Individuals who are characterized as environmental-centric are especially attentive to information on the product and value benefits that circular consumption provides. Societal-centric individuals engage in circular consumption, attributing value to a social process (e.g. repairing, reusing, exchanging, etc.), while resource-centric individuals pursue minimizing resource consumption (Testa *et al.*, 2024).

To summarize the findings, it could be pointed out that although some separate studies show that similar individual differences drive both sustainable and circular consumption (mainly related to pro-environmentalism), interestingly, some traits have distinct effects. For instance, innovativeness was found to be positively related to sustainable consumption (Li *et al.*, 2021), and negatively to circular consumption (Mugge *et al.*, 2017). The research focus on the two forms of responsible consumption has been unequal, with circular consumption being studied much less than sustainable consumption. Noticeably, the majority of prior studies have not assessed the effects of traits on sustainable and circular consumption using the same data sets – thus making the comparisons of those two types of consumption difficult, if not impossible. To sum up, this means that there are still grey zones in understanding how behaviors linked with sustainable and circular consumption converge and diverge.

2.3 Theoretical framework: activation of different traits in encounters with different products

Research in the sustainable and circular consumption domain has focused on using theories explaining how attitudes, values, intentions and norms drive different behaviors (see Camacho-Otero *et al.*, 2018; Haider *et al.*, 2022; Peattie, 2010; Steg and Nordlund, 2018 for review). When it comes to applying theories related to personality, research is usually limited to the application of major trait theories such as the Big Five Theory and HEXACO, focusing on the core traits that interact to form human personality (see Soutter *et al.*, 2020, for a

review). Another stream of the literature applies the self-determination theory (Deci and Ryan, 2012) as a framework to explore how traits related to intrinsic and extrinsic motivations affect consumption intentions of sustainable or circular products (e.g. Gagné, 2003; Nguyen *et al.*, 2022; Osbaldiston and Sheldon, 2003; Pelletier *et al.*, 1998). Yet these theories do not explicitly allow for the possibility that the effects of traits might depend on situational contexts.

The conceptual framework applied in the present research was inspired by the trait activation theory (Tett and Burnett, 2003). This theory examines how traits interact with situations and highlights that the same situation can impact individuals differently based on their distinct trait levels. Depending on the situation stimuli, the effect of the trait might be amplified or suppressed (Tett and Burnett, 2003). The trait-relevant situation can be evaluated by identifying the cues that influence the expression of behaviors related to that trait (Tett and Burnett, 2003; Manteli and Galanakis, 2022). For instance, prior research has tested how brand country of origin increases and decreases the effect of the trait of buying impulsiveness on purchase intentions (Liu *et al.*, 2021). More precisely, findings showed that consumers with higher buying impulsiveness have higher purchase intentions for local (vs foreign) brands, and vice versa, consumers with lower buying impulsiveness have higher purchase intentions for foreign (vs local) brands.

Although the trait activation theory has mainly been applied in the organizational behavior context (e.g. Hirst *et al.*, 2011; Van Hove and Turban, 2015; Tett *et al.*, 2021; Wu *et al.*, 2022), a few recent studies have already used it in the consumption domain (e.g. Ahn and Kwon, 2022; Flight *et al.*, 2012; Hatipoglu and Koc, 2023; Liu *et al.*, 2021).

Drawing on the rationale of the trait activation theory, we link the situations to *encounters with different products* and expect that trait-relevant forms of consumption have an effect on behavior. More precisely, we propose that specific traits might be activated by particular features of sustainable or circular consumption, leading individuals to either engage with or withdraw from these forms of consumption. For instance, if a sustainable product signals social benefits (e.g. producers' commitments to animal welfare or employing individuals from underserved communities), individuals with traits that value such efforts (e.g. altruism, empathy) are likely to respond positively. The same applies to circular consumption: if a circular product highlights a lower price, it might become a positive stimulus for individuals who may be described as frugal and negative for those who score high on status-seeking.

We aim to expand knowledge by highlighting the role of three specific underlying traits that possibly drive sustainable and circular consumption in different ways: meaning in life (both striving toward it and its presence), dispositional greed and openness to experience. Linking traits with our conceptual definition of sustainable and circular products (see above), we aim to explore traits that fundamentally differ in their promotion vs prevention orientation. Specifically, meaning in life, as well as openness to experience, represent a promotion-focus motivation (see Higgins, 1997; Miao and Gan, 2020; Vaughn *et al.*, 2008). On the contrary, dispositional greed exemplifies a prevention orientation (see Higgins, 1997; Holt and Laury, 2002; Krekels and Pandelaere, 2015). As these traits are conceptually linked with either a promotion or prevention focus, we expect them to sensitively grasp the non-overlapping differences between sustainable and circular consumption.

2.3.1 Collective benefiting orientation, meaning in life and responsible consumption. When engaging in sustainable or circular consumption, people need to put in additional effort for the greater good, which could be considered a collective benefiting orientation. For instance, people need to invest time in making more informed decisions, refuse unnecessary consumption and even pay more for sustainable products than for their regular counterparts (Griskevicius *et al.*, 2010). We propose that in the consumption domain, such a collective

benefiting orientation aligns with searching or acquiring meaning in life, which is defined as feeling as though one's life has purpose and value (Baumeister *et al.*, 2013).

Prior work indeed shows that people strengthen their feeling of meaning in life by engaging in some forms of responsible behavior, such as volunteering and spending money to benefit others (Baumeister *et al.*, 2013), or pro-environmental actions (Jia *et al.*, 2021). This notion is also in line with the personal goal-striving theory (Emmons, 2003), stating that individuals aiming to strengthen their sense that life is meaningful set and pursue personally significant goals, which should align with personal values. We argue that individuals with a collective benefiting orientation might consider sustainable and circular consumption as one of their goals. By setting and striving for goals related to sustainable and circular consumption, such individuals align their actions with their personal values, integrate these goals into their daily lives and contribute to a coherent and purposeful life narrative.

Based on the above and because both sustainable and circular consumption entail a collective benefiting orientation, we expect that consumption of both sustainable and circular brands is positively related to meaning in life. Thus, by integrating findings from various domains of research, we expect that:

- H1. Meaning in life is positively related to ownership of (a) sustainable and (b) circular brands.

2.3.2 Self-benefiting orientation, dispositional greed and responsible consumption. If sustainable consumption is indeed boosted by a collective benefitting orientation, the opposite – a self-benefiting orientation – should decrease sustainable consumption. Such a self-benefiting orientation motivation is captured by dispositional greed, defined as a desire to acquire more and more resources (Krekels and Pandelaere, 2015; Seuntjens *et al.*, 2015a).

Building on the prior conceptualization of sustainable consumption, this form of consumption is related to long-term orientation, meaning that it often requires delayed gratification, and sometimes sacrificing personal convenience for the greater good. This is the opposite of the motivation that greedy individuals are driven by. They often are motivated by self-interest, immediate gratification (such as cheaper or more convenient options) and maximizing personal gain (Seuntjens *et al.*, 2015b).

Prior research indeed provides support that dispositional greed may harm others and cause negative outcomes for society (Seuntjens *et al.*, 2015b; Zeelenberg and Breugelmans, 2022) and is a selfish motivation to gain an unfair share of resources at the expense of others (Cardella *et al.*, 2019). Previous studies have found that dispositional greed inhibits prosocial behaviors (e.g. Bao *et al.*, 2020), and greedy managers are less willing to invest in corporate social responsibility (Sajko *et al.*, 2021). Drawing on this line of research and taking into account that sustainable consumption is related to a collective benefitting orientation, we expect that:

- H2. Dispositional greed is negatively related to the ownership of sustainable brands.

While sustainable consumption entails the need to sacrifice own immediate interests for collective benefits, circular consumption may be driven by different underlying traits. Circular products are related to efforts to squeeze and retain as much value as possible (Pretner *et al.*, 2021). For consumers, this means a possibility to buy products that are more durable, easier to repair, refurbish or remanufacture, even to resell when they are no longer needed, or use their specific components in other beneficial ways after the product can no longer serve its primary purpose (Ellen MacArthur Foundation, 2025; Geissdoerfer *et al.*, 2017). Moreover, as circular products are manufactured efficiently, optimizing resources,

consumers expect them to cost less than their counterparts from virgin materials (Pretner *et al.*, 2021). Hence, greedy individuals might evaluate circular consumption through a utilitarian lens and find circular products that correspond to a value-related motivation. As dispositional greed represents a strong acquisitiveness drive with a maximum value orientation (see Zeelenberg and Breugelmans, 2022), and circular products provide the possibility to satisfy such drive, we expect that:

H3. Dispositional greed is positively related to the ownership of circular brands.

2.3.3 Cognitive flexibility, openness to experience and responsible consumption. Switching from regular to sustainable consumption requires a certain amount of psychological flexibility. Getting used to bringing your own reusable mug when purchasing coffee or driving an electric vehicle are but a couple of examples of underlying lifestyle changes needed to consume responsibly. Adapting to such changes is easier for open-minded consumers, who have the cognitive flexibility to break behavioral patterns and shift to new ideas or solutions (Guilford, 1967). Prior research has suggested that people may engage in responsible consumption more actively because they desire to challenge conventional ways of consuming goods (Feygina *et al.*, 2010), or because their interest in environmentalism is sparked by intellectual curiosity (Hirsh and Dolderman, 2007). This notion is also in line with the diffusion of innovations theory (Rogers, 1962), suggesting that individuals with strongly expressed openness to experience are more likely to be early adopters of innovations, as they are typically more curious, open to new ideas and willing to try novel practices. Previous work consistently showed that openness to experience is positively linked to sustainable behavior (e.g. Lange and Dewitte, 2019). Next, at the product level, circular manufacturing also represents a lot of innovation, for instance, the novel procedures to refurbish, the fact that old elements are used creatively to make something new, etc. Therefore, we hypothesize that:

H4. Openness to experience is positively related to ownership of (a) sustainable brands and (b) circular brands.

In addition, to test the robustness of our effects, we simultaneously investigate the role of meaning in life, dispositional greed, and openness to experience in light of another well-established predictor in making purchasing-related decisions – income. Prior work indicates that, in general, individuals with a high income engage in greater consumption and buy more products and services that require significant resources (Moser and Kleinhüeckelkotten, 2018). Thus, we expect that income level is positively related to purchases of all types of brands (regular, sustainable and circular choices).

In addition, we will test a logical implication of our reasoning: if meaning in life, openness to experience, and dispositional greed are positively related to the ownership of sustainable or circular brands – due to collective benefit, cognitive flexibility and self-benefiting motives – then we expect these effects to be stronger for sustainable and circular brands than for regular ones.

3. Research methodology

We conducted a quantitative, survey-based study that aimed to test how meaning in life, openness to experience and dispositional greed are related to ownership of sustainable and circular brands. Structural equation modeling (SEM) was employed to test the hypothesized relationships among different traits and ownership of distinct types of brands.

3.1 Sample, data collection, and survey administration

We recruited a convenience sample of British adults from Prolific Academic to participate in the survey as part of a larger study. Participation was anonymous and voluntary in exchange for a small amount of monetary compensation. A prescreen criterion was applied to ensure that only British nationals could participate. Participants were enrolled on a first-come, first-served basis, which reflects a non-probabilistic sampling approach. The sample consisted of a total of 500 respondents ($M_{age} = 40.2$ years, $SD = 13.7$, 49.4% female, 48.6% male, 0.8% other, 1.2% not indicated).

The study was approved by the research board of one of the authors' institutions (IRB approval no. 62, Consumer Decision Making Institutional Review Board, Faculty of Economics and Business Administration, Vilnius University). Prior to participation, all respondents were required to read and electronically sign an informed consent form. Respondents completed the survey in a single session and, at the end, were thanked and debriefed.

3.2 Research questionnaire and measures

We used well-established scales to test our hypotheses. *Meaning in life* was measured using a nine-item 7-point Likert scale (adapted from Steger *et al.*, 2006; see also Grouden and Jose, 2015; Newman *et al.*, 2018; Ward and Kim, 2023). The scale consisted of two conceptually different factors. The first factor is the presence of meaning, which refers to how meaningful an individual feels their life to be (sample item: I understand my life's meaning; $M = 4.51$, $SD = 1.44$, Cronbach's $\alpha = 0.93$). The second factor is search for meaning, which represents the extent to which individuals desire and strive to construct or enhance a sense of comprehensibility, make sense of their lives, and develop a stronger sense of purpose (sample item: I am looking for something that makes my life feel meaningful; $M = 4.59$, $SD = 1.27$, Cronbach's $\alpha = 0.90$) (adapted from Steger *et al.*, 2006; Martela and Steger, 2016). We measured those two factors with a scale ranging from 1 = "absolutely untrue" to 7 = "absolutely true," with higher scores reflecting higher levels of presence of meaning in life and searching for it. It is important to note that the presence of meaning and search for meaning factors were negatively correlated [$r(498) = -0.14$, $p < 0.01$], thus empirically confirming the distinct nature of these facets (see Steger *et al.*, 2006).

To measure *dispositional greed*, a six-item 7-point Likert scale ranging from 1 = "totally disagree" to 7 = "totally agree" was used (adapted from Seuntjens *et al.*, 2015b; see also Bao *et al.*, 2020; Seuntjens *et al.*, 2019; a sample item: I always want more; $M = 3.23$, $SD = 1.27$, Cronbach's $\alpha = 0.87$), with higher scores representing a higher level of dispositional greed.

Openness to experience was operationalized using a seven-item, 7-point scale ranging from 1 = "definitely false" to 7 = "definitely true" (adapted from Jackson *et al.*, 2000; a factor from Six Factor Personality Questionnaire used and validated in many studies, see Sigma Assessment Systems, 2025 for a list of studies; a sample item: I am open to change; $M = 5.19$, $SD = 1.01$, Cronbach's $\alpha = 0.83$). A higher score indicated higher levels of openness.

We also asked respondents to indicate their average disposable income per household (after taxes, per year) to measure income level. The interval scale ranged from 1 = "< £5000" to 9 = "> £40,001," a higher score indicated a higher level of income ($M = 5.31$, $SD = 2.70$).

To measure the actual purchasing of brands, we provided respondents with a list of sustainable, circular and regular brands and asked them to indicate which brands they bought over the last year. We compiled the list of sustainable and regular brands based on brand rankings of the UK's leading alternative consumer organization *Ethical Consumer* (www.ethicalconsumer.org/). Moreover, the list of circular brands was prepared after researching what circular brands are available in the UK market and what brands are

positioned as being produced in line with circular economy principles. We singled out 13 product categories, representing fast-moving consumer goods: coffee, ice cream, tea, chocolate, laundry detergents, toilet paper, cleaning products, shampoo, skincare products, toothpaste, high street clothes, shoes and other things. We used three or four sustainable and the same number of regular brands in each category and, in the non-food categories, we added circular brands, making 108 brands in total. The sequence of presenting the brands in each category was randomized. After data collection for further analysis, we excluded 42 brands that only five or fewer respondents chose. Together, we had 23 sustainable (e.g. Coffee Cafédirect, Green People Shampoo, HandM clothing), 6 circular (e.g. Patagonia, Clean Living, Vinted) and 37 regular brands (e.g. Primark, Domestos). The brand list used to compile the brand ownership measures is provided in [Table 1](#).

To assess ownership, we calculated the sum of all sustainable, circular and regular brands bought during the past year for each respondent ([Barauskaite et al., 2018](#); [Gineikiene and Diamantopoulos, 2017](#)). The final score for ownership of sustainable brands ranged from 1 to 23 ($M=2.03$, $SD=2.29$), for circular brands – from 1 to 6 ($M=0.34$, $SD=0.68$), and for regular brands – from 1 to 37 ($M=12.81$, $SD=6.33$). [Table 2](#) summarizes the measurement properties of the multi-item scales, and [Table 3](#) summarizes the correlations among constructs.

3.3 Analytical strategy

To test our hypotheses and examine the relationships between traits and ownership of different types of brands (sustainable, circular and regular), we used SEM, which allowed us to simultaneously estimate multiple relationships between latent constructs and observed variables in a comprehensive and theory-driven manner while controlling for measurement error ([Hair et al., 2010](#)).

A structural equation model was estimated with LISREL 8.8 ([Jöreskog and Sörbom, 2006](#)). The analysis proceeded in two steps as suggested by [Anderson and Gerbing \(1988\)](#). First, we estimated a measurement model to assess the reliability and validity of the constructs. Second, we estimated the structural model to test the hypothesized relationships between traits (presence of meaning, search for meaning, openness to experience and dispositional greed) and ownership of sustainable, circular and regular brands.

3.4 Measurement model

The dimensionality, reliability and validity of our construct measures were investigated via a confirmatory factor analysis. Overall measurement model fit was acceptable ($\chi^2=947.70$, $df=221$, $RMSEA=0.081$, $CFI=0.930$). Based on the results of the confirmatory factor analysis, we removed items that loaded less than 0.4 on respective scales ([Hair et al., 2019](#)). Composite reliabilities of the construct measures ranged from 0.83 to 0.93, while average variance extracted (AVE) values ranged from 0.43 to 0.73. All AVEs exceeded the squared correlation between each construct with all other constructs, thus establishing discriminant validity ([Fornell and Larcker, 1981](#)).

We followed both *ex ante* (procedural) and *ex post* (statistical) procedures to address common method variance (CMV; [Chang et al., 2010](#)). Regarding *ex ante* procedures, we assured respondents of the anonymity and confidentiality of their responses and emphasized that there were no right or wrong answers. We also counter-balanced question order and adopted different response formats. Finally, we asked respondents about their ownership before asking them about dispositional greed, meaning in life, and openness to experience to avoid social desirability and priming effects ([Podsakoff et al., 2003](#)).

Table 1. Brand list used to compile the brand ownership measures

Sustainable brands		Circular brands		Regular brands	
(1)	Cafédirect	(1)	Clean Living	(1)	Kenco
(2)	Taylors of Harrogate ground coffee	(2)	Patagonia clothing	(2)	Nescafe instant coffee
(3)	Percol	(3)	Napapijri	(3)	Starbucks (from a non-Starbucks shop and a Starbucks shop)
(4)	Yeo Valley Organic ice cream	(4)	Vinted	(4)	Magnum, Cadbury's ice cream
(5)	Roskilly's ice cream	(5)	Adidas UltraBoost DNA Loop shoes	(5)	Häagen-Dazs Ice Cream
(6)	Mackie's organic dairy ice cream	(6)	IKEA's secondhand store	(6)	Lipton tea
(7)	The London Tea company tea			(7)	Twinings tea
(8)	Cafedirect tea			(8)	Tetley tea
(9)	Clipper tea			(9)	Cadbury's chocolate
(10)	Montezuma's organic chocolate			(10)	Milka chocolate
(11)	Tony's Chocolonely chocolate			(11)	Sainsbury's chocolate
(12)	Seed and Bean chocolate			(12)	Surf laundry detergent
(13)	Ecover laundry detergent			(13)	Persil laundry detergent
(14)	Bio-D laundry detergent			(14)	Woolite laundry liquid
(15)	Who Gives A Crap Recycled Toilet Paper			(15)	Tesco toilet paper
(16)	Ecoleaf recycled toilet paper			(16)	ASDA Shades toilet paper
(17)	Method household cleaners			(17)	Domestos cleaners
(18)	Lush shampoo bars			(18)	Cif household cleaners
(19)	Faith in Nature liquid and bar shampoo			(19)	Vanish cleaning products
(20)	Green People shampoo			(20)	Head & shoulders
(21)	Nobody's Child clothing			(21)	Dove shampoo
(22)	COS clothing			(22)	TRESemme
(23)	H&M clothing			(23)	Kiehl's

(continued)

Table 1. Continued

Sustainable brands	Circular brands	Regular brands
		(24) Vaseline
		(25) Garnier
		(26) Aquafresh toothpaste
		(27) Colgate toothpaste
		(28) Sensodyne toothpaste
		(29) Primark clothing
		(30) Next clothing
		(31) Amazon clothes
		(32) Pretty Little Thing
		(33) Hush Puppies shoes
		(34) Timberland shoes and boots
		(35) Crocs shoes
		(36) Clarks footwear

Note(s): We singled out 13 product categories: coffee, ice cream, tea, chocolate, laundry detergents, toilet paper, cleaning products, shampoo, skincare products, toothpaste, high street clothes, shoes and other things. We selected product categories applying these criteria: (1) they belong to fast-moving consumer goods (FMCG) categories, meaning that they are “inexpensive products that people usually buy on a regular basis” (Collins COBUILD Advanced Learner’s Dictionary, 2024); (2) *Ethical Consumer* provides ratings for this category and there is a number of product options to choose from; (3) these products are sold in the grocery shops in the UK

Source(s): Authors’ own work

Table 2. Study measures

Construct	Items	Factor loading	Reliability
Presence of Meaning subscale (Steger <i>et al.</i> , 2006)	I understand my life's meaning	0.83	α = 0.93; C.R. = 0.93; AVE = 0.73
	My life has a clear sense of purpose	0.92	
	I have a good sense of what makes my life meaningful	0.85	
	I have discovered a satisfying life purpose	0.88	
	My life has no clear purpose, (R)	0.78	
Search for Meaning subscale (adapted from Steger <i>et al.</i> , 2006; Martela and Steger, 2016)	I am looking for something that makes my life feel meaningful	0.74	α = 0.90; C.R. = 0.9; AVE = 0.7
	I am always looking to find my life's purpose	0.82	
	I am always searching for something that makes my life feel significant	0.90	
	I am seeking a purpose or mission for my life	0.88	
	I always want more	0.74	
Dispositional Greed (adapted from Seuntjens <i>et al.</i> , 2015b)	Actually, I'm kind of greedy	0.69	α = 0.87; C.R. = 0.87; AVE = 0.53
	As soon as I have acquired something, I start to think about the next thing I want	0.75	
	It doesn't matter how much I have. I'm never completely satisfied	0.81	
	My life motto is "more is better."	0.76	
	I can't imagine having too many things	0.63	
Openness to Experience (adapted from Jackson <i>et al.</i> , 2000)	I am interested in many things	0.50	α = 0.83; C.R. = 0.83; AVE = 0.43
	I want to increase my knowledge	0.58	
	I am open to change	0.41	
	I am not interested in abstract ideas, (R)	0.72	
	I am not interested in theoretical discussions, (R)	0.80	
Income level [average disposable income per household (after taxes, per year)]	I try to avoid complex people, (R)	0.74	na
	I rarely look for a deeper meaning in things, (R)	0.72	
	(1) <£5000; (2) £5001–£10,000; (3) £10,001–£15,000; (4) £15,001–£20,000;	na	
	(5) £20,001–£25,000; (6) £25,001–£30,000; (7) £30,001–£35,000; (8) £35,001–£40,000;		
	(9) >£40,001		
Note(s): AVE = average variance extracted; C.R. = composite reliability, na = not assessed			
Source(s): Authors' own work			

Table 3. Discriminant validity assessment and inter-construct correlations

	Mean	SD	1	2	3	4	5	6	7	8
1. Presence of Meaning	4.51	1.44	0.73	0.02	0.02	0.01	0.02	0.003	0.005	0.004
2. Search for Meaning	4.59	1.27	-0.14 (0.002)	0.73	0.01	0.05	0.0004	0.01	0.01	0.01
3. Dispositional Greed	3.23	1.27	-0.12 (0.008)	0.22 (0.000)	0.43	-0.25 (0.000)	0.01	0.0004	0.02	0.03
4. Openness to Experience	5.2	1	0.15 (0.001)	0.12 (0.007)	0.06	0.43	0.003	0.03	0.0009	0.0009
5. Income level	5.31	2.70	0.14 (0.002)	-0.02 (0.646)	-0.05 (0.303)	0.10 (0.027)	na	0.02	0.0009	0.005
6. Ownership of sustainable products	12.81	6.33	0.05 (0.277)	0.11 (0.011)	0.16 (0.000)	-0.02 (0.696)	0.13 (0.005)	na	0.08	0.08
7. Ownership of circular products	0.34	0.68	0.07 (0.122)	0.11 (0.014)	0.03 (0.560)	0.15 (0.001)	0.03 (0.476)	0.28 (0.000)	na	0.08
8. Ownership of regular products	12.81	6.33	0.06 (0.200)	0.12 (0.009)	0.03 (0.523)	0.16 (0.000)	0.07 (0.102)	0.28 (0.000)	0.28 (0.000)	na

Note(s): Correlations are shown below the diagonal, AVEs are shown on the main diagonal (*italic text*), and squared correlations are shown above the diagonal. *p*-values are given in parentheses. *na* = not applicable; AVE = average variance extracted; SD = standard deviation

Source(s): Authors' own work

We also statistically tested for CMV *ex post*. First, we employed the marker variable approach proposed by [Lindell and Whitney \(2001\)](#). We used the item “I have friends with whom I can share my joys and sorrows” (measured on a seven-point scale, 1 = “totally disagree” and 7 = “totally agree”) as a marker variable which, from a conceptual point of view, was unrelated to the constructs analyzed in our model. We performed a partial correlation analysis of the items measuring our constructs and assessed whether the significance of their zero-order correlations changed when the marker variable was partialled out. The significance of the resulting coefficients did not change, suggesting that CMV was not a problem. Second, we further assessed CMV by including a common latent method factor in the measurement model and compared the resulting CFA model with that of the CFA model without the method factor. In light of the minor differences in fit (see [Table 4](#)), CMV does not seem to pose a problem for our sample.

4. Results

A structural equation model produced an acceptable fit ($\chi^2 = 1057.02$, $df = 275$, $RMSEA = 0.076$, $CFI = 0.927$; see more details on the measurement model and common method variance in [Table 4](#)).

In line with *H1a*, searching for meaning in life had a positive relationship with ownership of sustainable brands ($\beta = 0.11$, $t = 2.26$, $p < 0.05$, see [Figure 1](#)); however, we did not find a relationship between the presence of meaning in life and ownership of sustainable brands ($\beta = 0.04$, $t = 0.87$, $p = 0.39$). Searching for meaning was not significantly related to ownership of circular brands ($\beta = 0.08$, $t = 1.54$, $p = 0.12$), and the presence of meaning in life was positively related to ownership of circular brands ($\beta = 0.11$, $t = 2.31$, $p < 0.05$). Thus, *H1a* and *H1b* are partially supported. Finally, the ownership of regular brands had no reliable relationship with either the presence of meaning in life ($\beta = 0.08$, $t = 1.61$, $p = 0.11$) or with the search for it ($\beta = 0.09$, $t = 1.79$, $p = 0.07$).

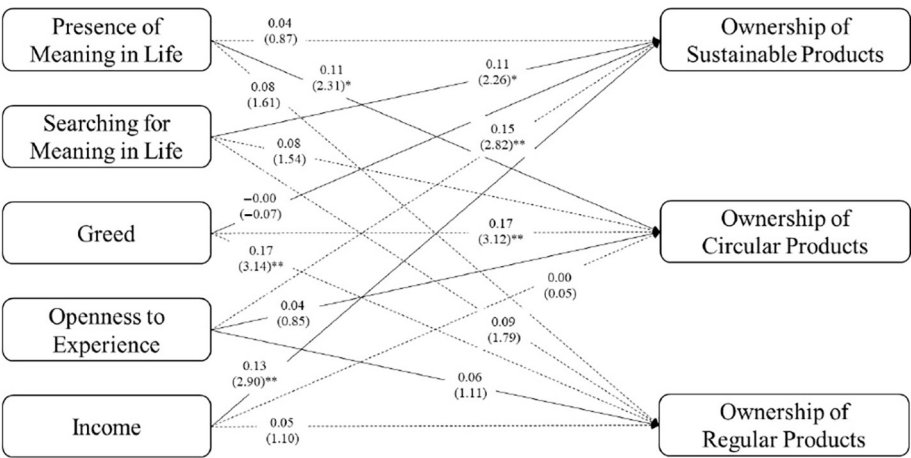
Next, *H2* was not supported, as there was no significant relationship between dispositional greed and ownership of sustainable brands ($\beta = -0.00$, $t = -0.07$, $p = 0.94$). However, dispositional greed was positively related to ownership of circular brands ($\beta = 0.17$, $t = 3.12$, $p < 0.01$); thus, *H3* was confirmed. In addition, dispositional greed was positively related to the ownership of regular brands ($\beta = 0.17$, $t = 3.14$, $p < 0.01$).

In line with *H4a*, openness to experience was positively related to the ownership of sustainable brands ($\beta = 0.15$, $t = 2.82$, $p < 0.01$). *H4b* was not supported, as openness to experience was not related to ownership of circular brands ($\beta = 0.04$, $t = 0.85$, $p = 0.40$). In addition, openness to experience was not related to the ownership of regular brands either ($\beta = 0.06$, $t = 1.11$, $p = 0.27$).

Table 4. Common method variance assessment

<i>With method factor</i>	
χ^2 , $df = 202$	801.55
RMSEA	0.077
CFI	0.939
<i>Without method factor</i>	
χ^2 , $df = 203$	962.27
RMSEA	0.084
CFI	0.930

Source(s): Authors' own work



Note: standardized estimates shown, *t* values in brackets, nonsignificant paths are dashed;
** if *p* < .01, * if *p* < .05.

Figure 1. Model testing results
Source: Authors' own work

Furthermore, the relation of income level to ownership of sustainable brands was significant and positive ($\beta = 0.13$, $t = 2.90$, $p < 0.01$). However, income level was not related to ownership of circular ($\beta = 0.00$, $t = 0.05$, $p = 0.96$) and regular ($\beta = 0.05$, $t = 1.10$, $p = 0.27$) brands.

5. Discussion

Drawing on the trait activation theory (Tett and Burnett, 2003) as a theoretical framework, the current study demonstrates how traits affect different types of sustainable and circular consumption. Simultaneously evaluating a range of traits, representing promotion and prevention orientations, we show their diverging effects on the consumption of sustainable and circular brands. Specifically, the findings of our study show that searching for meaning in life is positively related to ownership of sustainable brands, while the presence of meaning in life is positively related to ownership of circular brands. Dispositional greed is positively related to ownership of circular, but not sustainable brands. Meanwhile, openness to experience has a positive relationship with ownership of sustainable, but not circular brands.

First, our results indicate that the presence of meaning in life is positively related to the ownership of circular but not sustainable brands. In contrast, searching for meaning in life has a positive relationship with the ownership of sustainable but not circular brands. In line with previous work (Steger et al., 2006), our data provides empirical support that meaning in life consists of two facets and shows the diversity between them. We suggest that one of the explanations for such diverging findings for the two types of meaning may lie in the pragmatic meaning regulation theory – if people seek to enhance their meaning efforts, they are more adaptive to possible behavioral strategies that can regulate meaning (van Tilburg and Igou, 2011). Thus, when searching for meaning mode is active, consumers are motivated

to own sustainable brands. In addition, sustainable consumption requires more economic resources compared to a circular one and our findings are in line with recent research reporting that meaning-seekers are more determined to engage in more costly responsible behavior compared to less expensive behavior (Dakin *et al.*, 2021). In contrast, when meaning in life is already acquired, people seek fewer regulating strategies via acquiring material goods. Therefore, they opt for old (reused, remodeled, refurbished, etc.) circular goods instead of buying new sustainable goods. Previous research suggests that the presence of meaning in life promotes self-control, which helps avoid momentary urges (MacKenzie and Baumeister, 2014) and, thus, facilitates responsible consumption. This may explain why consumers with a stronger sense of the presence of meaning in life are more prone to purchase circular brands that are more value oriented. Further research is needed to replicate and further specify this potentially impactful differentiation.

Second, our findings provided evidence that the trait of dispositional greed is positively related to ownership of both circular and regular brands. However, we do not find support for the link to ownership of sustainable brands. These findings can be explained by the fact that circular products are related to efforts to squeeze out and retain as much value as possible and circular products often do not have a premium price as is the case for sustainable products (Pretner *et al.*, 2021). This might be why circular products better correspond to the needs of greedy individuals. Further research should additionally confirm this remarkable finding, and if it is robust, it will open up new avenues to promote the use of circular products.

Third, we show that openness to experience is positively related to the ownership of sustainable brands, and there is no relationship to the ownership of circular and regular brands. As circular products are produced with very little or no virgin resources, it may signal ordinariness, despite the fact that innovative approaches, procedures, etc. might be employed to produce them. For individuals with high openness to experience, circular products could appear less relevant because they do not fulfill their desire to try new things. If some circular products introduce new ways of consumption (as services of the sharing economy), it could be a deal breaker; however, further research is needed to confirm this.

Finally, income level is not significantly related to the ownership of regular and circular brands; however, it has a positive relation to the consumption of sustainable ones. In the sustainable consumption domain, previous findings state that sustainable goods often cost more than their regular equivalents, and this can explain why people with higher incomes have an increased desire to acquire sustainable goods (Zhao *et al.*, 2014).

5.1 Theoretical contributions

We contribute to the existing literature in several ways. First, we contribute to the conceptualization of sustainable and circular consumption by discussing how these two forms are related, how they overlap and how they diverge. In some contexts, circular consumption is presented as sustainable consumption (e.g. Park and Lin, 2020), and indeed, there are cases where it is possible to use these terms interchangeably, as circular consumption is considered to be a form of sustainable consumption (Geissdoerfer *et al.*, 2017). However, prior research has pointed out that a lack of common understanding of the circular economy itself can lead to the “concept eventually collapsing or ending up in conceptual deadlock” (Kirchherr *et al.*, 2017). Our work suggests concrete definitions and novel approaches on how to conceptually address sustainable and circular consumption by focusing on the differences in (1) scope, (2) focus and (3) orientation.

Second, while previous research shows the importance of understanding the role of traits in responsible consumption, currently available insights are limited, as previous studies do not examine whether the effects of traits differ for different types of responsible consumption.

Only recently was it pointed out that specific characteristics of circular products distinguish them from sustainable ones and that these two types of responsible consumption should be considered distinct categories; therefore, drivers can also vary (Pretner *et al.*, 2021). However, to date, no research has tested whether certain traits predict sustainable and circular consumption similarly using the same data sets. Drawing from the trait activation theory (Tett and Burnett, 2003), our research expands the current knowledge arguing that sustainable and circular products might signal different features corresponding to distinct traits. Research in the sustainable and circular consumption domain has focused on using theories explaining how attitudes, values, intentions and norms drive different behaviors (see Camacho-Otero *et al.*, 2018; Haider *et al.*, 2022; Peattie, 2010; Steg and Nordlund, 2018 for review), resulting in a yet unclear picture of how sustainable and circular products might be linked to various traits. Our research draws attention to the potential for a deeper understanding of traits as potential drivers and encourages further research in this domain.

Third, we expand existing knowledge by shedding more light on the complexity of the constructs of meaning in life, openness to experience and dispositional greed in the domain of responsible consumption. By investigating separate dimensions of meaning in life (the presence of meaning in life and searching for it), we show that these dimensions have different effects on different forms of responsible consumption. Furthermore, previous research has repeatedly found a link between openness to experience and pro-environmental choices. However, we show that this trait does not necessarily drive the actual consumption of circular products, which also provides environmental benefits. Finally, we demonstrate that dispositional greed is a positive driver of circular but not sustainable consumption.

Fourth, previous research has focused on measuring intentions and documented that, on the surface, consumers may feel positive and intend to buy sustainable brands but do not follow up when it comes to actually buying such brands (e.g. White *et al.*, 2019). We meanwhile measure the ownership of different types of brands, and by doing so, we contribute to the literature and provide practical implications regarding actual consumer choices.

5.2 Managerial implications

Our work provides several implications for managers and policymakers. First, for managers, we highlight the potential of long-term, promotion-oriented vs short-term, prevention-oriented branding. Our work suggests that the former is more suitable for positioning sustainable brands, while the latter can be used for circular brands.

Second, we show that when promoting sustainable vs circular products, companies might consider a wider range of consumer characteristics. Specifically, managers might consider incorporating relevant elements for diverse consumers in the consumption process, product designs or framing of messages. For instance, presenting new creative ways of using a product, employing extravagant innovative designs, new materials or cutting-edge technology, etc. – such unique and forward-thinking solutions could draw attention and raise the curiosity of open to experience individuals who have a desire for personal growth and self-expression. In contrast, circular brands may consider highlighting the lower cost of such products and explain how the usage of such products helps to save money and other resources at the later stages as well (e.g. inform about resale, reuse, etc. opportunities). Such communication would correspond to the needs of individuals high on dispositional greed.

Third, our findings might be relevant for policymakers responsible for different educational initiatives. The opportunity to strengthen the sense of meaning in life by engaging in sustainable consumption could be promoted in the educational field. For instance, self-improving programs or apps that help people improve their well-being can

introduce sustainable consumption in recommendations, together with explanations of why it might strengthen the sense of meaning in life.

Additionally, when comparing different categories of sustainable brands, our data shows that the least popular categories were toilet paper (5%) and tea (8%); and the most popular categories were clothing (21%), coffee (13%) and ice-cream (13%). The least popular category for circular brands was cleaning products (4%) and the most popular was clothing (44%). Finally, the least popular categories for regular brands were shoes (4%), toilet paper (6%), laundry detergents (6%) and skincare products (6%); and the most popular were ice-cream (11%), coffee (11%), toothpaste (11%) and cleaning products (11%). This indicates that heterogeneity can be discerned between the categories. Thus, companies could take a closer look at the choices of certain categories or sustainable and circular products compared to regular products and accordingly plan consumer campaigns or wider consumer education, justifying the importance of sustainable and circular products.

5.3 Limitations and future directions

Despite important contributions, our study has several limitations that future research might address. First, while our data offers highly externally valid findings as we study actual consumption of sustainable and circular brands, future research might consider isolating and testing underlying effects using an experimental design and in more controlled lab settings to establish causal relationships (Aronson and Carlsmith, 1968; Kirk, 2009). The experimental design could also approach limitations regarding our methodology of compiling sustainable, circular and regular brand lists. For instance, our research does not assess whether the relationships between particular traits and consumption of sustainable and circular brands are different among different product categories, as our list of brands did not aim to correspond representatively to the actual market shares of different products. Prior research has indeed shown that category-specific product characteristics (e.g. hedonic vs utilitarian) may moderate consumer responses (Luchs and Kumar, 2017). However, it would be interesting to delve deeper into researching whether the consumption of brands of different categories would have different effects and investigate the reasons for distinctions or similarities. This could be tested in the future.

Second, future studies could provide insights into the reasons for the effects shown in the present research by investigating boundary conditions and possibilities to reverse, strengthen or attenuate the effect. For instance, according to the findings of this study, dispositional greed is positively related to the consumption of circular brands; however, the relationship between dispositional greed and sustainable consumption was nonsignificant. Future studies might explore whether this distinction is affected by the non-overlapping features of sustainable and circular products and what exactly these features signal that they correspond to the needs of greedy individuals (e.g. cost-efficiency; Seuntjens *et al.*, 2015b).

Third, we aimed to show that distinct traits can motivate individuals to engage in different forms of responsible consumption and ground the notion that sustainable and circular products, in some cases, might signal different benefits. Yet, we acknowledge that, in some cases, the signaling of sustainable and circular products can overlap. For instance, sustainable products that are not circular might signal value preservation, while circular brands can have a broader promotion orientation. We might speculate that the motivations underlying consumer preferences for overlapping products characterized by value preservation could include materialism, frugality, environmental concern, strong future orientation, or moral obligation, etc. (Alam *et al.*, 2023; Suárez *et al.*, 2020). Future research might address this question.

Finally, with our work, we purposefully estimated only the ownership of sustainable, circular and regular brands. However, responsible consumption encompasses more consumption forms, such as de-ownership, transferring from a traditional “owning” to a

“pay-per-use” ownership or collaborative consumption (Korhonen *et al.*, 2018). Future research may consider measuring this wider variety of responsible consumption forms and estimating the generalizability of our findings among them.

Author notes

Parts of the research reported in this article were conducted while the second author was affiliated with ISM University of Management and Economics.

Note

- [1.] Note that ownership is a prerequisite of consumption, which is a broader term encompassing all behavioral outcomes linked to “the process of buying and using goods, or the amount that is bought and used” (Cambridge University Press, n.d.b).

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